

limited to, maintenance of natural systems and long-term productivity of existing flora and fauna, habitat diversity, hydrological utility, fish, wildlife, timber, and food. Under this Order, a developmental project in a wetland may proceed only if no practicable alternatives can be ascertained and if the proposal . . . includes all practicable measures to minimize harm to the wetland that may result from its use."

Executive Order 11988—Floodplain Management (May 24, 1977). This Executive Order requires that Federal agencies take floodplain management into account when formulating or evaluating water or land use plans and that these concerns be reflected in the budgets, procedures, and regulations of the various agencies. This Order allows developmental activities to proceed in floodplain areas only when the relevant agencies have ". . . considered alternatives to avoid adverse effects and incompatible development in the floodplains . . ." or when, in lieu of this, they have ". . . designed or modified their actions in order to minimize potential harm to or within the floodplain . . .".

Executive Order 11987—Exotic Organisms (May 24, 1977). This Executive Order requires that Federal agencies shall restrict, to the extent permitted by law, the introduction of exotic species into the lands or waters which they own, lease, or hold for purposes of administration, and encourage the States, local governments, and private citizens to do the same. This Executive Order also requires Federal agencies to restrict, to the extent permitted by law, the importation of exotic species and to restrict the use of Federal funds and programs for such importation. The Secretary of the Interior, in consultation with the Secretary of Agriculture, is authorized to develop by rule or regulation a system to standardize and simplify the requirements and procedures appropriate for implementing this Order.

NATIONAL/INTERNATIONAL TREATIES

Federal Trust Responsibility to Indian Tribes. This responsibility is reflected in the numerous Federal treaties with the Indian tribes. These treaties have the force of law. Protection of Indian hunting and fishing rights necessitates conservation of fish and wildlife and their habitat.

Convention Between the United States and Japan (September 19, 1974). This Treaty endorses the establishment of sanctuaries and fixes preservation and enhancement of migratory bird

habitat as a major goal of the signatories.

Convention Between the United States and the Union of Soviet Socialist Republics Concerning the Conservation of Migratory Birds and Their Environments (November 8, 1978). This Treaty endorses the establishment of sanctuaries, refuges, and protected areas. It mandates reducing or eliminating damage to all migratory birds. Furthermore, it provides for designation of special areas for migratory bird breeding, wintering, feeding, and molting, and commits the signatories to ". . . undertake measures necessary to protect the ecosystems in these areas . . . against pollution, detrimental alteration and other environmental degradation." Implementing legislation, Pub. L. 95-616, was passed in the United States in 1978.

Convention on Nature Protection and Wildlife Preservation in the Western Hemisphere (April 15, 1941). This Treaty has several provisions requiring parties to conserve certain wildlife resources and their habitats.

Convention Between the United States and Great Britain (for Canada) for Protection of Migratory Birds (August 1, 1916, as amended January 30, 1979). This Treaty provides for a uniform ". . . system of protection for certain species of birds which migrate between the United States and Canada, in order to assure the preservation of species either harmless or beneficial to man." The Treaty prohibits hunting insectivorous birds, but allows killing of birds under permit when injurious to agriculture. The 1979 amendment allows subsistence hunting of waterfowl outside of the normal hunting season.

APPENDIX B—OTHER DEFINITIONS

"*Compensation*," when used in the context of Service mitigation recommendations, means full replacement of project-induced losses to fish and wildlife resources, provided such full replacement has been judged by the Service to be consistent with the appropriate mitigation planning goal.

"*Ecoregion*" refers to a large biogeographical unit characterized by distinctive biotic and abiotic relationships. An ecoregion may be subclassified into domains, divisions, provinces, and sections. A technical explanation and map is provided in the "Ecoregions of the United States" by Robert G. Bailey, published by the U.S. Forest Service, 1976.

"*Ecosystem*" means all of the biotic elements (i.e., species, populations, and communities) and abiotic elements (i.e., land, air, water, energy) interacting in a given geographic area so that a flow of

energy leads to a *clearly* defined trophic structure, biotic diversity, and material cycles. (Eugene P. Odum. 1971. *Fundamentals of Ecology*)

"*Evaluation species*" means those fish and wildlife resources in the planning area that are selected for impact analysis. They must currently be present or known to occur in the planning area during at least one stage of their life history except where species not present (1) have been identified in fish and wildlife restoration or improvement plans approved by State or Federal resource agencies, or (2) will result from natural species succession over the life of the project. In these cases, the analysis may include such identified species not currently in the planning area.

There are two basic approaches to the selection of evaluation species: (1) selection of species with high public interest, economic value or both; and (2) selection of species to provide a broader ecological perspective of an area. The choice of one approach in lieu of the other may result in a completely different outcome in the analysis of a proposed land or water development. Therefore, the objectives of the study should be clearly defined before species selection is initiated. If the objectives of a study are to base a decision on potential impacts to an entire ecological community, such as a unique wetland, then a more ecologically based approach is desirable. If, however, a land or water use decision is to be based on potential impacts to a public use area, then species selection should favor animals with significant human use values. In actual practice, species should be selected to represent social, economic and broad ecological views because mitigation planning efforts incorporate objectives that have social, economic, and ecological aspects. Species selection always should be approached in a manner that will optimize contributions to the stated objectives of the mitigation planning effort.

Most land and water development decisions are strongly influenced by the perceived impacts of the proposed action on human use. Since economically or socially important species have clearly defined linkages to human use, they should be included as evaluation species in all appropriate land and water studies. As a guideline, the following types of species should be considered:

- Species that are associated with Important Resource Problems as designated by the Director of the Fish and Wildlife Service (except for threatened or endangered species).